

Abstract

The invention provides a pattern forming method in which a minute resist pattern can be formed with uniform dimension accuracy in the plane of a substrate, while manufacturing costs and processing time are not increased. In a pattern forming method in which after a first resist pattern containing a photo-acid generating agent is formed on a substrate by a lithography method, a resist film containing a cross-linking agent, which reacts with acid, is coated on the substrate in a state where it covers the first resist pattern, a cross-linking reaction is made to occur at an interface between the first resist pattern and the resist film to grow a cross-linked layer, and a second resist pattern made of the cross-linked layer and the first resist pattern is formed, a step of irradiating the first resist pattern with light is carried out before the resist film is coated on the substrate.